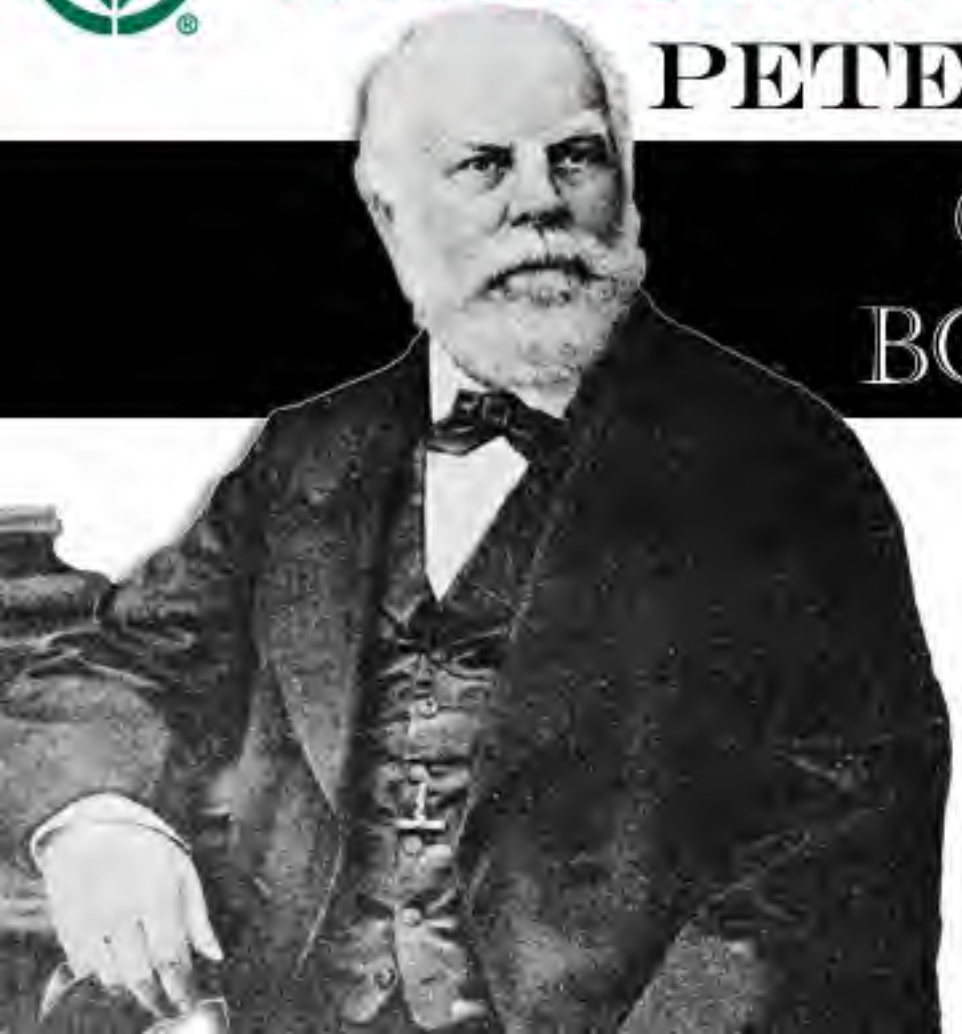
Missouri Botanical Garden
Peter H. Raven Library

George Engelmann Botanical Notebooks



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Microscopical Examination of

Starch

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14090

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1860

×400

×400

Potato starch prepared by E. Sanders

blood corpuscle
1/3300 inch

Wheat Starch
prep. by E. Sanders

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Deutsche Apotheke

von

John G. Schütze & Co.,

Südwestliche Ecke von Broadway und Morgan Straße,

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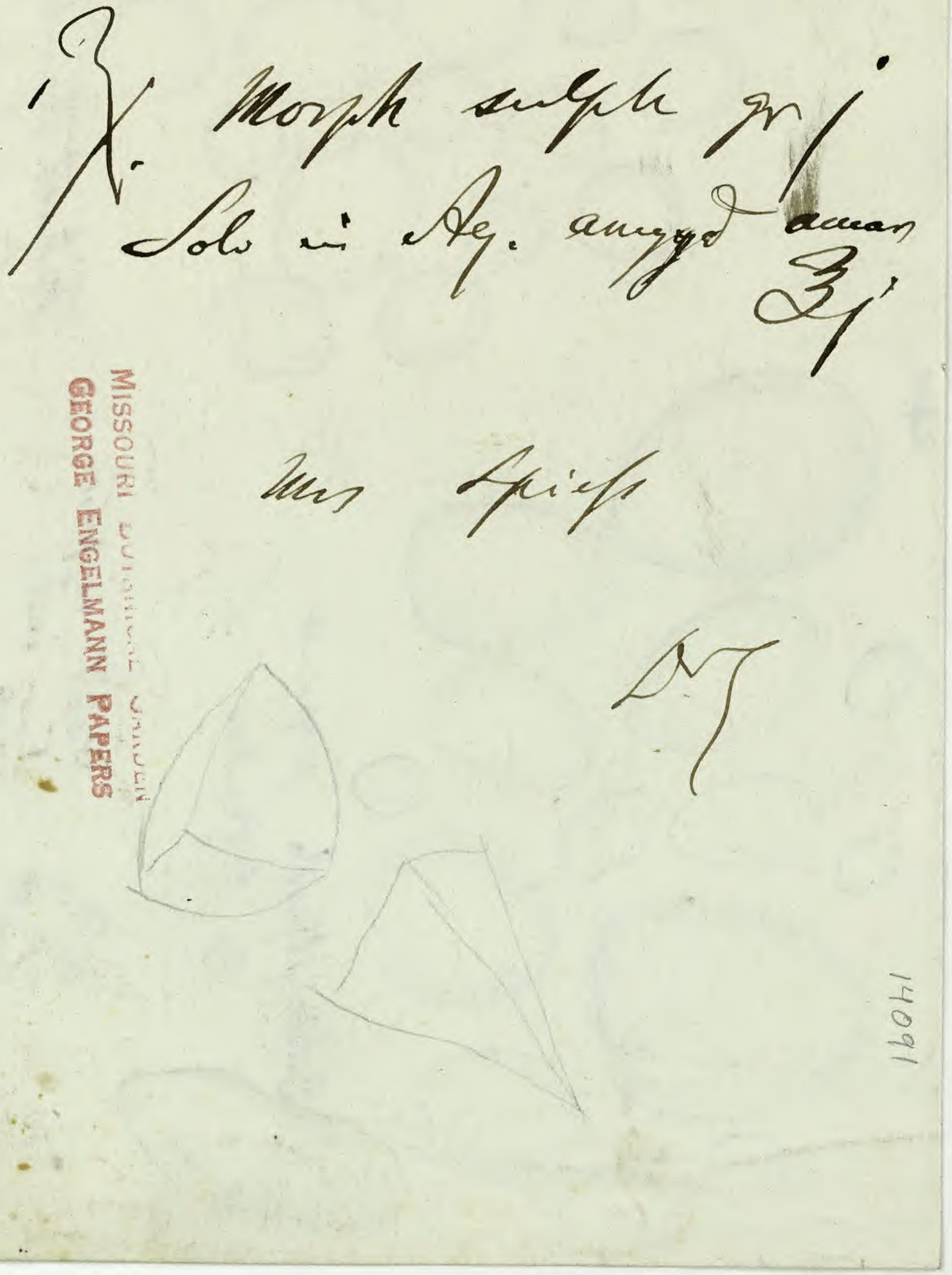

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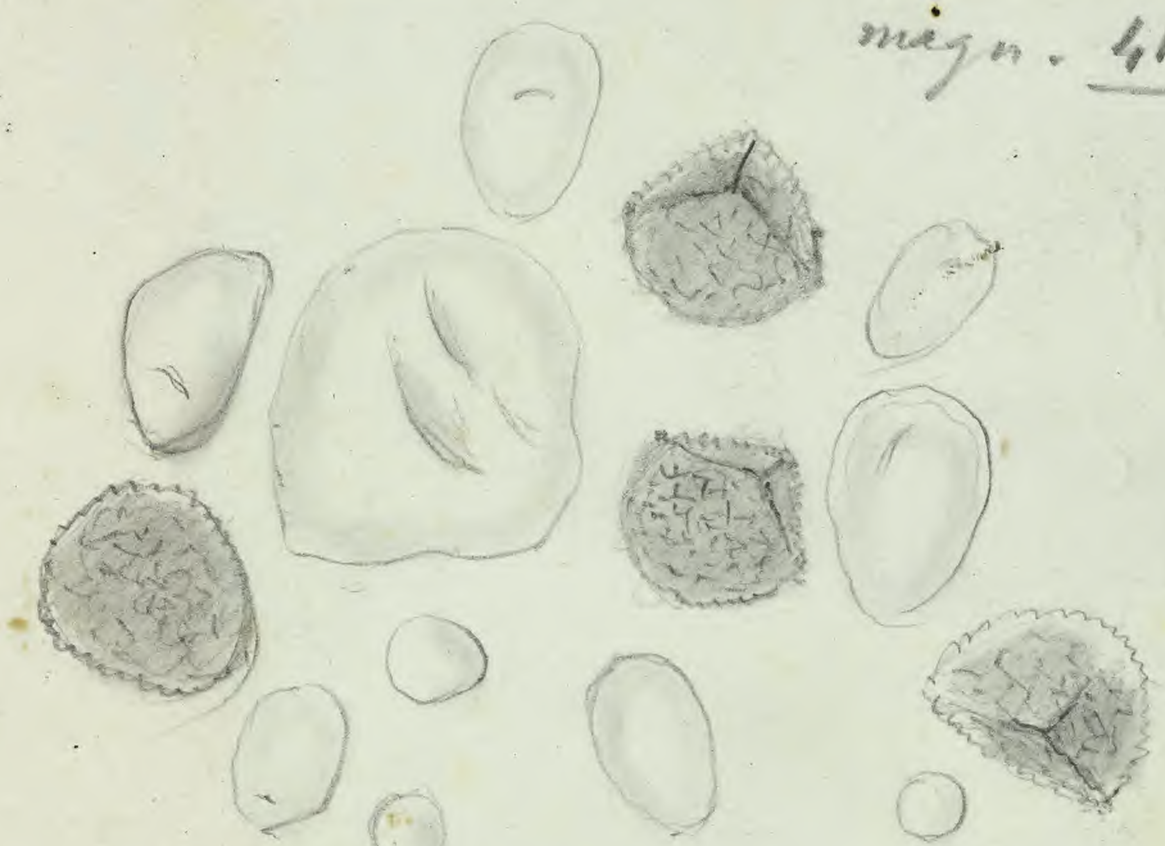
Hummitech's cornstarch

magn. 412

1860



Sem Lycopodii adulterated with starch

VEGETABLE PHYSIOLOGY AND CHEMISTRY
Museum of Economic Botany
Royal Botanic Gardens, Kew

ARTHUR LEITCH,

APOTHECARY AND CHEMIST,

Sixth and Market streets, St. Louis, Mo.

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1402

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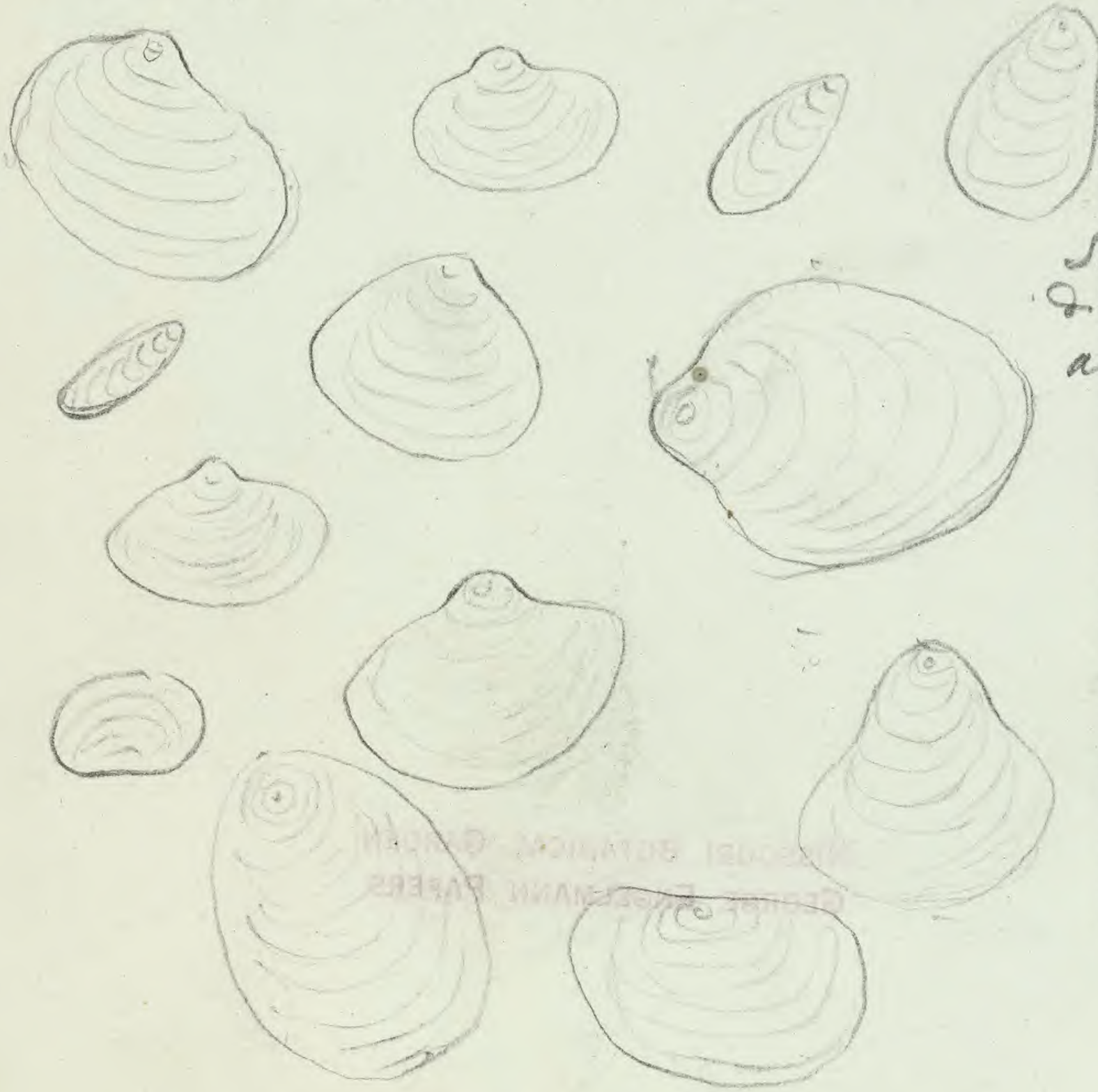
Stamh of Canna spec. prepard by Dr Sander - St Louis Jan. 1864



Striations more distinct than in any other stamh examined

14093

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APOTHECARY & PHARMACEUTIST.
Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

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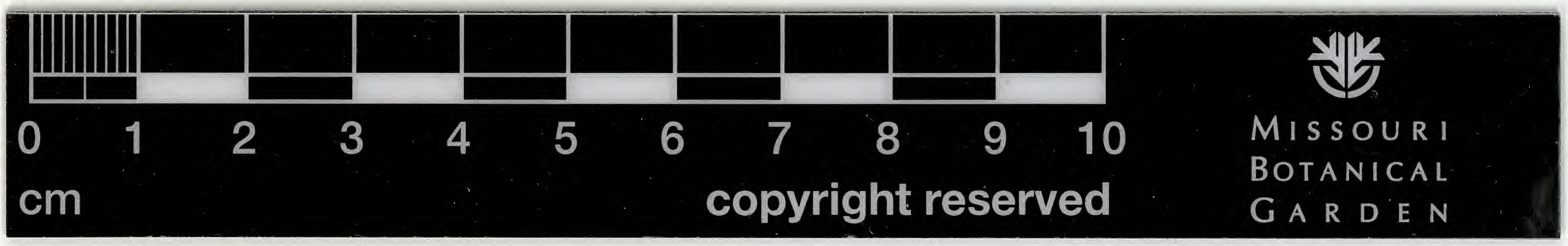

Jan. 1861

„Tous les mois"

Canna coccinea ?

Mexique

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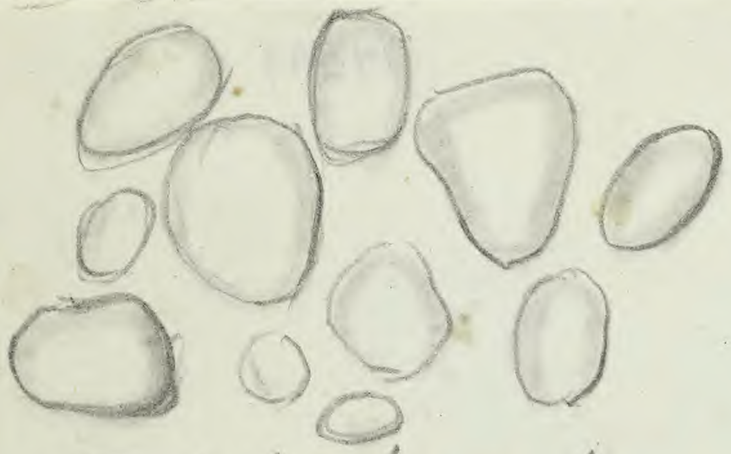
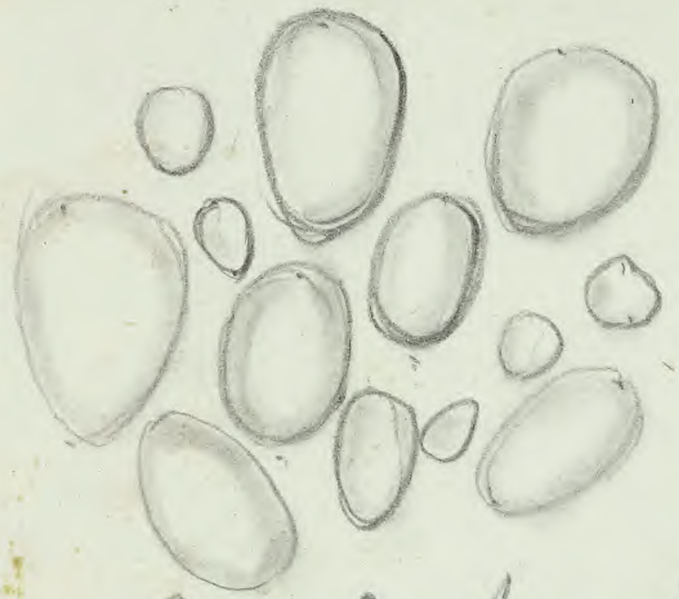
mag 7 — 412

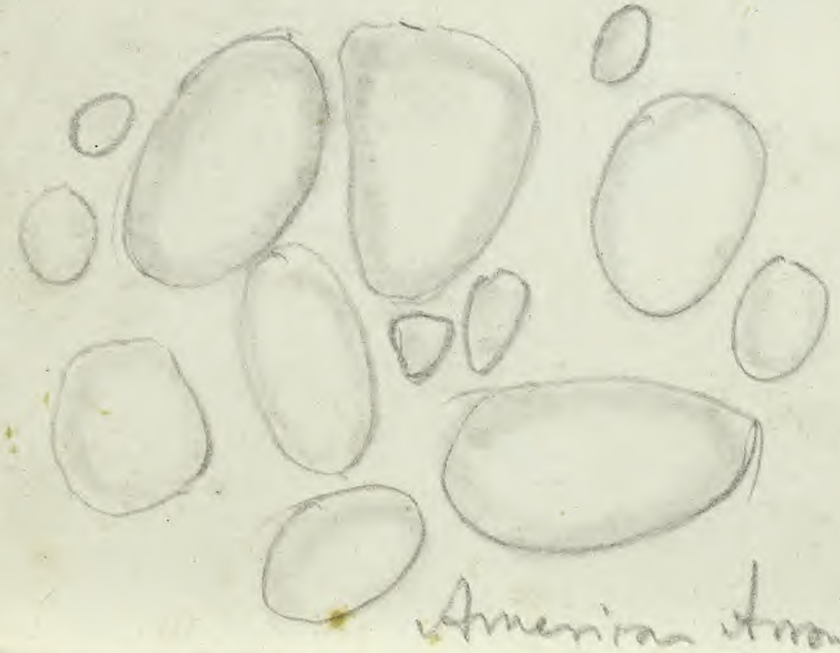
1860



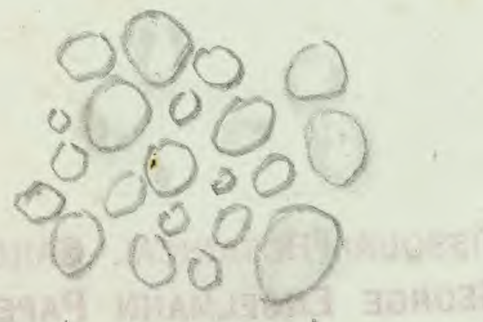
Taylor's Arrowroot
put up in London



Bermuda Arrowroot



American Arrowroot



~~Potato~~ Starch
sold in Stores

Cornstarch
put up for puddings etc

ARROWROOT AND CHEMICAL
MANUFACTURE FELCH'

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Pathology

Physiology

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9b041

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× 280

Octo 26 1864

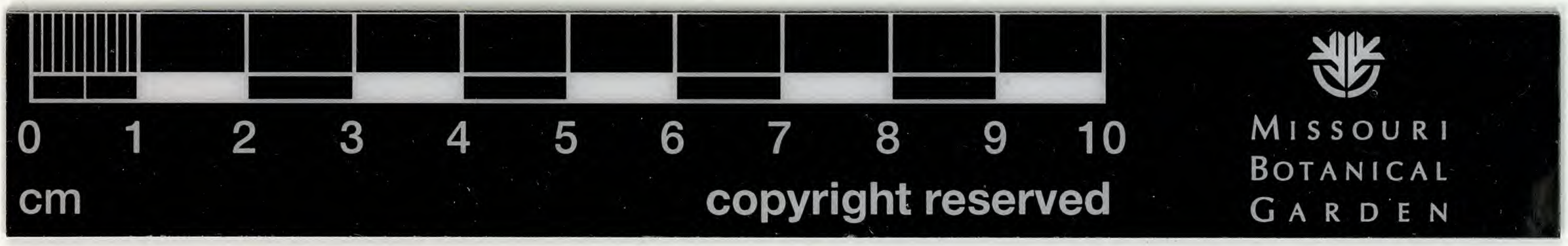
renal tube

very sparing in view of a patient with
valvular disease of heart and
with ascites

diamt $\frac{2\frac{1}{2}}{280}$ mm = 0.008 mm

280 | 225 | 0,008
294
90

Digitized by
Tulane
Tulane University



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Leitch & Corlies

DRUGGISTS

South-west Corner Fifth and Market Streets

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1604

X 785

fibrous Excrescence in lungs of child of Mr Barrett

April 29 1870

globules $\frac{1}{1785}$ inch diam., nearly twice the diam of blood
resolved with the amorphous mass

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GEORGE ENGELMANN PAPERS

JONES & LEITCH,
DRUGGISTS
COR. FIFTH & MARKET STREETS,
ST. LOUIS, MO.

J. McKittrick & Co. Cor Main & Vine.

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cm
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From Beckie Greene's
dorsal abscess

Jan 31 1871

×415

blood 0.072 mm diam

oil

Pus
0.070 – 0.096 mm diam.

my own blood

0.077 mm

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cm
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14099

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GEORGE ENGELMANN PAPERS

Lilienthal & Unna
DRUGGISTS
Southwest Fifth & Market Streets

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Received addition in Feb 17 1871
Mr Erskine's Herb.
frequent micturition with
pain in end of penis

6½

6/785 mm

3 – 3.5/415

nearly as small

another examination Feb 19

gave 6½ – 7/785 mm

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George Engelmann Papers

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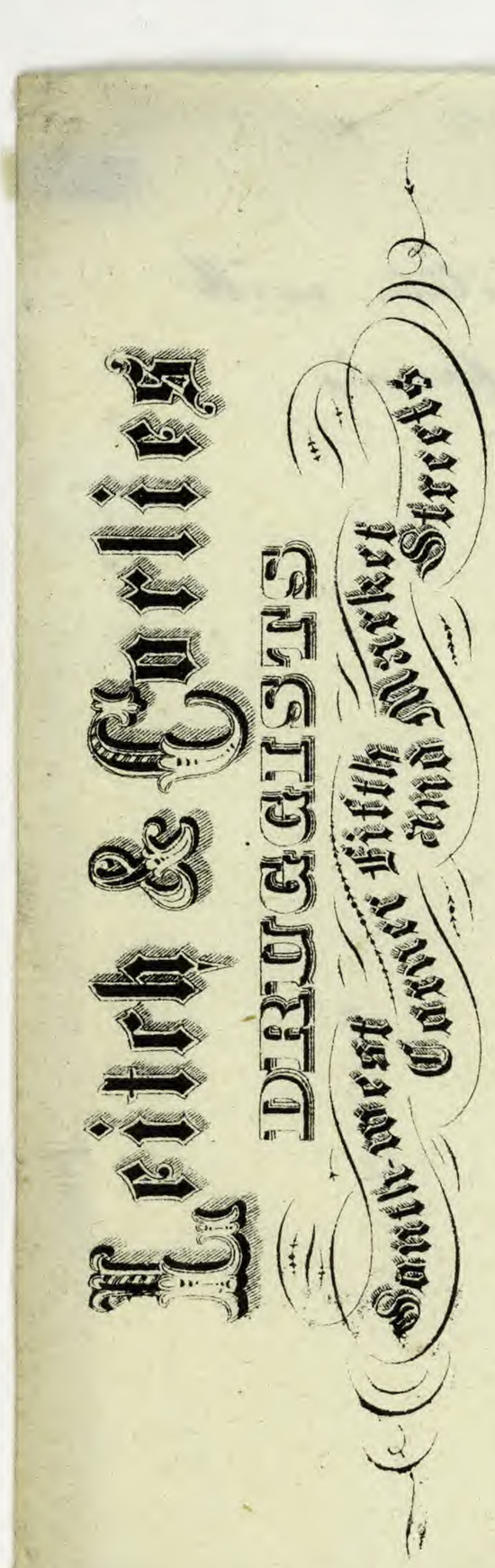

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cm
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Mucus? Pus?
globules in Mrs Jacobus's Urine
Feb 16 1877
Occ in regn of Kidneys

7.5 / 785 mm

×785

3.5 / 415 mm

×415

Urine milky, settling not clear
no change in boiling,
considerable purulent looking sediment
consisting of the above globules

another measurement
Feb 19

Sure 8 / 785 mm

0 1 2 3 4 5 6 7 8 9 10
cm
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14101

Lilienthal & Curlin

DRUGGISTS

Corner Fifth and Market Streets

Louisville

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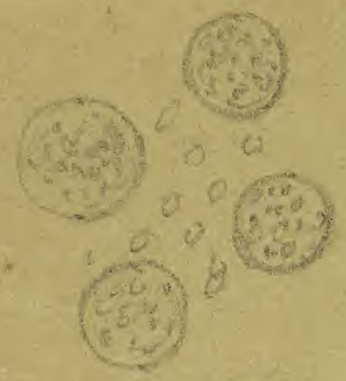
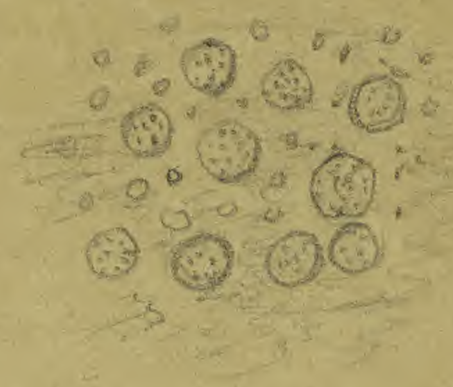
× 780

Pus globules
Expectoration of
Rokki son
Feb. 5. 60



3 – 4 lin
usual size of pus globules
0.00025 inch ; many as
small as 0.00033 inch
... size may be and the 25–30

× 412



1.5 – 1.8 li
usual size of globules
0.0020 — largest size
0.0038 inch
and the 25–30

1.00000

$= \frac{1}{3333} - \frac{1}{4000}$ inch

(about $= \frac{1}{3200}$)

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cm
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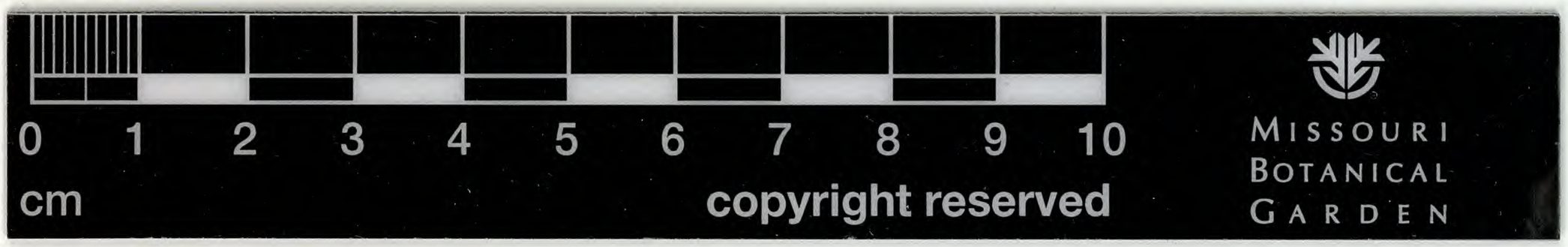
14102

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Cor. of Sixth & Market Streets, St. Louis, M

ARTHUR LEITCH. APOTHECARY.



The following disinfectants range as follows

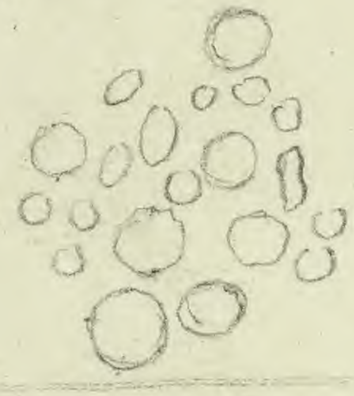
Chloride of Lime	100
Carbolic Lime	84
Alum	80
Sulphate Iron	76
Chloralum	74
Chloride Magnesia	54

14103

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

April 1872

×785



$\frac{1\frac{1}{2}-3\frac{1}{2}}{785}$

0.002 – 0.004 mm

Emily Chapman

brown matter thrown up
by Emily pour the stomach
(chronic inflammation)

May own blood

$\frac{53}{785}$ mm = 0.0068 mm = 0,00025 pars inches
the size given ÷ Müller's Physiol.

0 1 2 3 4 5 6 7 8 9 10
cm
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M'SSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Smith & Curtis
DRUGGISTS
Corner Fifth Market and Olive Streets
Southwest

0 1 2 3 4 5 6 7 8 9 10
cm
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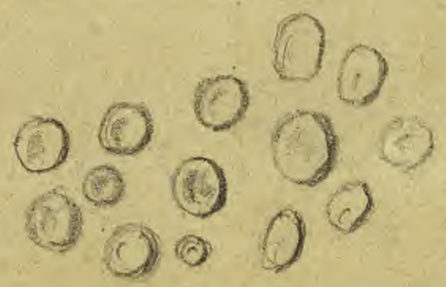
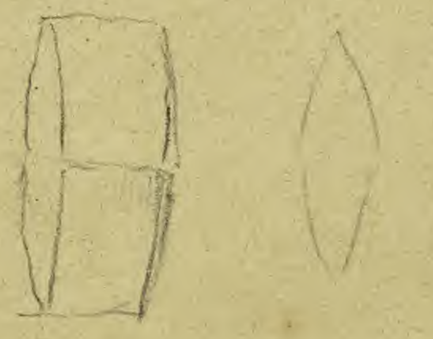
Urinary sediment of Fred Gerrie
Washington, Mo
Aug 10 1872

arthritis — enlargement of liver, kidneys

×785

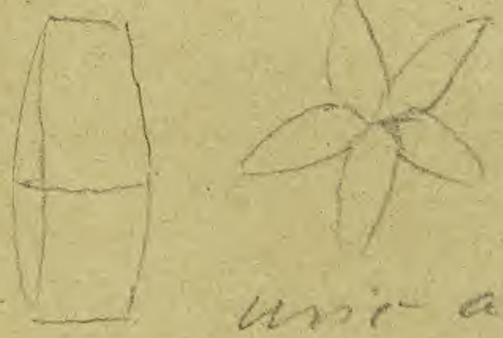


ferment-fungi?
not altered by nitric acid, nor by muriatic &c
apparently a little contracted
by glycerin

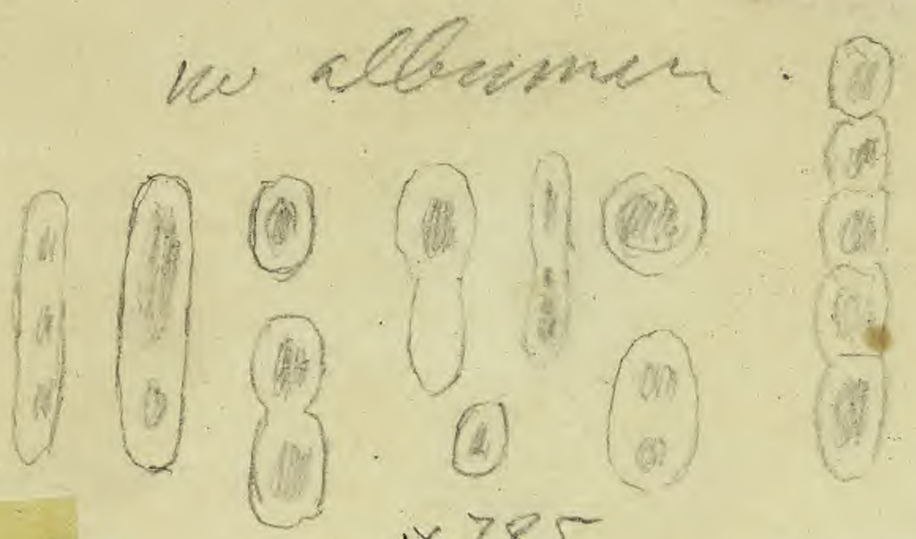


×150

Ferment cells in great
abundance. — urine 2 days old



urine acid
dissolved by nitric acid
with evolution of gas bubbles
muriatic acid
has no effect



×785

Aug 12 The urine has filtered nearly clear, but in 48 hours became turbid and was covered with a white wrinkled yeast-looking membrane, which consists of such cells, and bacteria and smelled very acid. Sugar?

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0 cm 1 2 3 4 5 6 7 8 9 10
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My hair

Febr 18' 1877

× 280

$\frac{6}{280} = 0.02$

tip

hair of Eyebrow

middle

$\frac{16.5}{280.}$

$= 0.06$ mm Thick

$\frac{43}{280}$

$= 0.15$ mm Thick

280 | 800 | 002
-6
20

280 | 430 | 0,15
28
150
140

280 | 1650 | 0,06
9 | 412

Lower half of hair with Brown mark

White hair from head

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14106

Leitch & Corlies

WHOLESALE DRUGGISTS

South West Corner Fifth and Market Streets.

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cm
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List of Plants
Collected by
Marcus E. Jones
and Named by
Dr. Geo. Engelmann

1 Andropogon [illegible] L.
2 Muhlenbergia mexicana var.
3 Scirpus validus
4 " atrovirens
5 " Eriophorum var.
cyperinus ?
6 Scirpus ?
Aug.

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GEORGE ENGELMANN PAPERS

6. Eleocharis obtusa
7 " loose scapes torn from base
8 Juncus tenuis
8a "
9 " tenuis
10 " nodosus L.
var megacephalus
11 Poa sylvestris Ehrh.
12 Poa ?
13. "
14
15
16
17
18
19
20
21

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cm 0 1 2 3 4 5 6 7 8 9 10

22

23 Actopnia stolonata
June.

24

24 Eragrostis?

26 " (rare)

27 " Aug.

28 " poaeoides var. mex.
July.

29
Aug.

30 Agrostis?
Aug.

31 "

32 " cectra
June.

33 Panicum sang.

34 " dichotomum
June.

35 " "
Jacques Bingham Farlow
Missouri Botanical Garden

36 Oct.

37 Gymnopogon Hyeloc
July.

38 Elymus Virginicus L.
July.

39 " striatus
July.

40 Panicum Crus Galli
Muhlenbergia ?

41 "

42 Leersia Virginica

43 Bouteloua curtipendula

44 Festuca tenella
Festuca sciuroides

45 Alopecurus aristulatus ?
June.

46 Bromus ciliatus var.
July.

47 " Canadensis var
Lett. Nashant

48 Sorghum halepense

49 Stipa spartea

5'0 Muhlenbergia
Oct.

5'1 Carex varia
5'1a " "
5'1b " "

5'2 Carex Pennsylvanica
5'2a " "
5'2b " "
5'2c " "
5'2d " "
5'2e " "
5'2f " "
5'2g " "
5'2i " "
5'2j " "
5'2K " "

5'3

5'4 Carex Richardsonii
Prairie (rare)

5'5 Carex Meadii
5'5a " "
5'5b " "

5'6 Carex T. davisii
P. have notice that both specimens are rough throughout dense and the others loose.

5'7 Carex trichocarpa

5'8 Carex Buxbaumii

5'9 " intumescens

6'0 "

6'1 "

6'2 " River bottom

6'3 Carex hystricina

6'4 " riparia

6'5 Cyperus strigosus

6'6 " diandrus
var. canadensis?

6'7 Scleria triglomerata
Rhynchospora glomerata

6'8 Carex trichocarpa
(immature)

6'9 C. Davisii

7'0 C. laxiflora var. blanda
Typ. form?

7'1 C. laxiflora var. blanda

7'2 " " " "

7'3 " " " "

7'4 Carex ?
Although this is imperfect I hope you may know what it is for I have just discovered it among my C. laxiflora specimens.

75 C. laxiflora var. latifolia
76 C. laxiflora var. blanda
77 " " "
78 C. flexilis Dr. Boott says this is right. Is there any mistake about it?
79 C. [illegible]
80 Carex ?
81 Carex Jamesii (See Flora Colorado)
82 " "
83 " "
84 " " ?
85 " "
86 " "
87 " "
88 " " ?
89 " "
90 " "
91 " "
92 " "
93 " "
94 " "
95 " "
96 " "
97 " "
98 " "
99 " "
100 " "
101 " "
102 " "
103 Carex ?
104 Carex ?
105 " tenuiscula
106 " vulpinoidea
107 " cephalophora ??
108 " cephalophora
109 Carex
110 "
111 " disticha
112 " rosea
113 " stellulata, var. scirpoidea
114 " sparganioides var.
115 " foenea ?
116 " straminea ?
117 " Liddonii
118 " "
This is on the authority of W. Boott. The more I study it the more I question it. For the perigynia are broadly winged and ought to place it among the "Ovales" of Gray's Manual.
119 abcdefghi
" straminea
all these for me C.
" ??
120 Carex ?

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cm 0 1 2 3 4 5 6 7 8 9 10

146 Nastur. palust. var.
157 Dentaria laciniata
157a " "
b " "
c " "
148 Erysimum chiri
149 " " var?
(according to Prof. Busey I only send this for spec. because he says it is an var. and it is all I have.
160 Sisymbrium officin
161 " canescens
162 Beauvisia linifol.
163 Lepidium intermedium
164 Viola cit. var. palm
165 Hypericum Canad.
166 " sphaeroceph
167 " ear. mitosm
168 Silene stellata
169 Lychnis Githago
170 Stellaria long.
171 Cerastium vulgatum
172 Sagina procumb.
173 Linum sulcatum
174 Astragalus caryocarp (parvus?)
175 Desmodium canes.
176 " Dillenii var glabrius
177 " viridiflorum (nov. sect) Buckley
178 Spiraea salicifolia
179 Potentilla Norvegica
180 " Canadensis
181 Fragaria Virg. (not var. ?)
182 Rosa blanda var pteson
183 Crataegus ~~Crus-gallii~~ Canthus yellow fruit below here? Canton var punctat
184 " Est " ?
185 " Coryton ~~Crus-gallii~~ (~~nat glabrous~~)
186 Pomifera (very pubescent)
187 C. tomentosa var. mollis ?
188 Ribes rotundi.
189 Parnassia Kaspl.
190 Epilobium palustre var linear
191 Oenothera biennis var. (parviflora ?)
192 Heracleum lanatum (Wood)
193 Archemora rigida var. linearis
194 Thaspium barbinode
195 " aureum var.
196 Cicuta maculata
197 Sium floridanum
198 Erigenia paniculata

122 Cornus stamínea var. typica?

123 Salix alba

123a " "

124 " " var. vitellina

125 "

126 " tristis d (dry. prairie)

127 " nigra var.? (tree 30 feet high)

128 " nigra var? (tree 25 feet high)

129 S. ? (shrub 10° tall)

130 shrub 10°

131 S. ~~lucida~~ (12°)

132. (10°).

133. S. nigra (black bark. 15°) slender tree.

134. S. nig. var. amyg.? (tree 30° large, not slender)

135. S. n. var.? (tree 35° slender, growing in wet place)

136. S. cordata shrub.

137 S.

138. S. nigra var? (tall 40-50°)

139. S.

140 S. nigra

141 S.

142. S. longifolia

143 S. lucida?

144 S. nigra var. amyg.? (tree 40°)

145 S. tristis according to Prof. L. E. Bessey of Ames Iowa, Is it not cordata?

146. S. nigra

147. Clematis Pitcheri T. & G. This plant was collected by me in Aug. 1877.

148. Arenaria trig. & var (two forms? (Wood & prairie)

149. Thalictrum purpur. June. 13. 1876.

150 Ranunculus abortivus

151 repens ~~& circularis~~?

152 Delphinium ~~tricorne~~ (two species?)

Berberis vulg. L. (bush)

154 Nuphar advena

155 Nuphar cymbalum

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0 1 2 3 4 5 6 7 8 9 10 cm

199 Carum silicea
200 Trioleum perfoliat
(not perfoliate?)
201 Silaum trifoliatum
(genuine?)
202 " " var. latifolia
203 " trifoliatum
204 Actis lanata var.
gracilis. Nov. Belg.
205 " agrestis
206 " ericoides
207 " " var.??
208 " multiflorus
(genuine?)
208a " (smooth glabrous form)
209 ~~Aster~~ " linifolius
(scales not slender pointed?)
210 " tenuifolia
211 " carneus?
212 " carneus?
213 " Novi Belgii
214 " laevis
215 " ~~Novi Belgii~~
216 " oblongifolius?
217 " Boreal-Anglicus
(one specimen was
pinnatifida)
218 Eupatorium perfoliatum
219 " ageratoides
220 " sessilifolium
221 Baptisia leucophaea
222 Solidago speciosa
~~var. angustata~~??
223 " Ægida
(leaves lanceolate
thin-veined)
224 S. Riddellii
225 " ulmifolia
226 " Canadensis??
227 " Ardela
228 " Missouriensis
229 " gigantea
230 Xanthium strumarium
231 Rudbeckia laciniata
232 " subtomentosa
(disk dark purple)?
233 " hirta
234 Helianthus giganteus
235 " doronicoides
236 " strumosus
237 Harpalium rigidum
~~var. runcinatum~~
238 Bidens connata
239 " chrysanthemoides
240 Synedrella ~~chrysanthemoides~~

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cm 0 1 2 3 4 5 6 7 8 9 10

241 Artemisia Ludoviciana var. incrata, (see Flora N.A.)

242 A. Ludoviciana var? (forma?)

243 Senecio aureus var. obovatus

244 Liatris ~~spicata~~ dispersa Ludoviciana

245 Lactuca ~~Ludoviciana~~ ? var. integri ?

246. Plantago major (rang? form?)

247. Lysimachia lanceolata (var. hybrida?)

248. " " var. ~~angustifolia~~?

249 Physanthes gratiolodes

250 Veronica peregrina

251 Ludwigia sphaerica,

252 Rubiacea ~~Galium~~ Galium aparine (ara eras?)

253. ~~Mimulus~~ ~~Gnaphalium~~ ?

254 Physaliozia virg.

255 Scutellaria parvula

256 Teucrium ~~canadense~~ canadense

257 Echinacea ~~purpurea~~ simplex

258 Lonicera ~~flexuosa~~ ?

259 Physalis Peruviana var. lanceolata?

260 Lentibularia subulata

261 Asclepias ~~tuberosa~~ ?

262 Rhus, ~~aromatica~~ var. pedicellata

263 " Bodcia

264 Amaranthus ~~blitoides~~ blitum (see Flora B.A.) Wooton. (prostrata)

265 Polygonum ~~hydropiperoides~~ hydropiperoides

266 " hydropiperoides var. mite ~~Rare~~

267 " arenastrum var. crispum

268 " aviculare

269 " ramosissimum

270 " Pennsylvanicum

271 " ~~dumetorum~~ Convolvulus

272 " dumetorum var. scandens

273 Rumex crispus

274 " Britannica

275 Ulmus ~~fulva~~ Americana

276 Quercus ~~Virginiana~~ Georgiana

277 Sagittaria ~~heterophylla~~ sagittifolia var. ~~Nuttallii~~

278 Panicum ~~sphaerocarpon~~

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0 1 2 3 4 5 6 7 8 9 10
cm

278 b Spiranthes [illegible] pen 1/6

278 a-b-c are all three forms of 274 ??

280 Tillia [illegible] var. alba ?

281 same as last

282 Nemacia grand.

283 Erythrea, all,
The leaves are often conspicuously mottled,

284 Hamiltonia multifidus var. ciliosus?
(Sent me by a correspondent)

284 a Tragopogon ?
This plant corresponds to T. parrifolius save that the flowers are yellow never blue.
It is thoroughly established at Grinnell, not even constant mowing will kill it.

286 Carex [illegible] ?

0 1 2 3 4 5 6 7 8 9 10
cm
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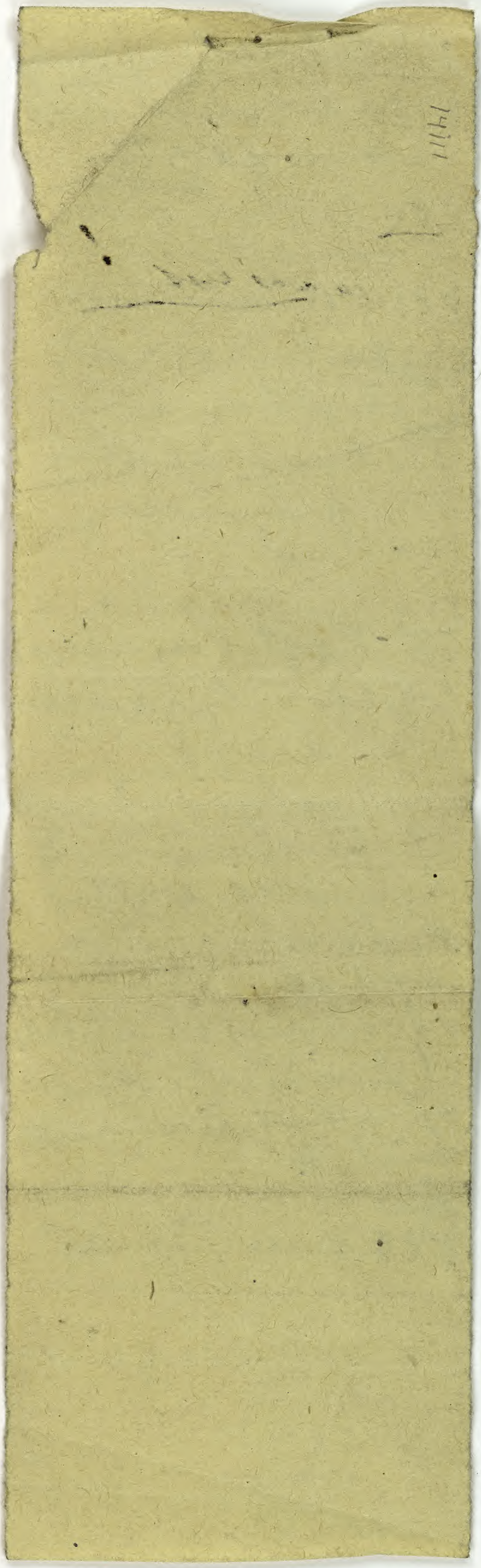

0 1 2 3 4 5 6 7 8 9 10
cm
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